

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

**Unit 7 Test – Form A**

**40**

**Slope**

Find the slope given the following information.

$(1, -19)$   $(-2, -7)$

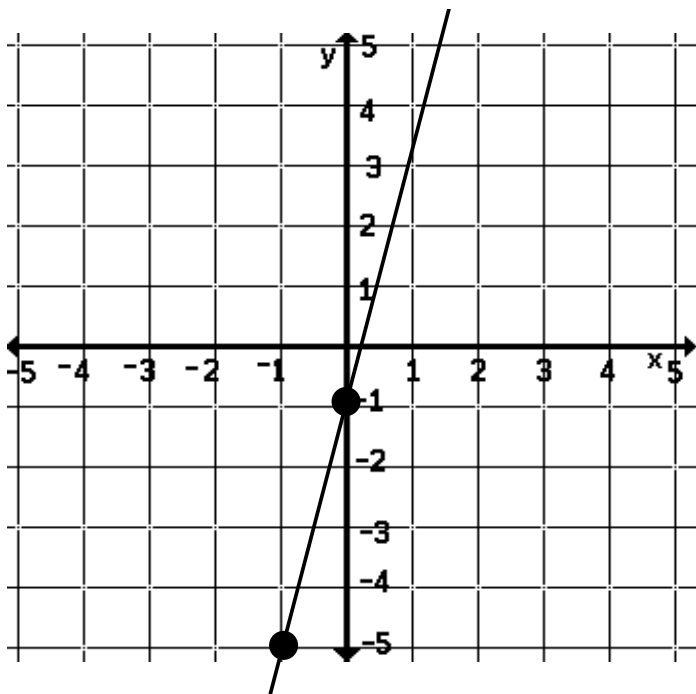
$(9, 3)$   $(19, -17)$

x	y
2	6
4	9
6	12

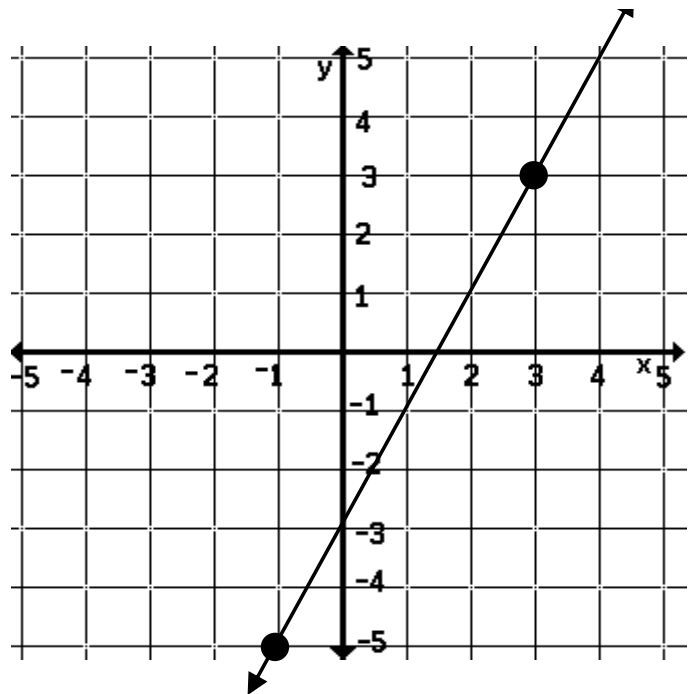
$m =$  \_\_\_\_\_

x	y
1	5
2	10
3	15

$m =$  \_\_\_\_\_



$m =$  \_\_\_\_\_

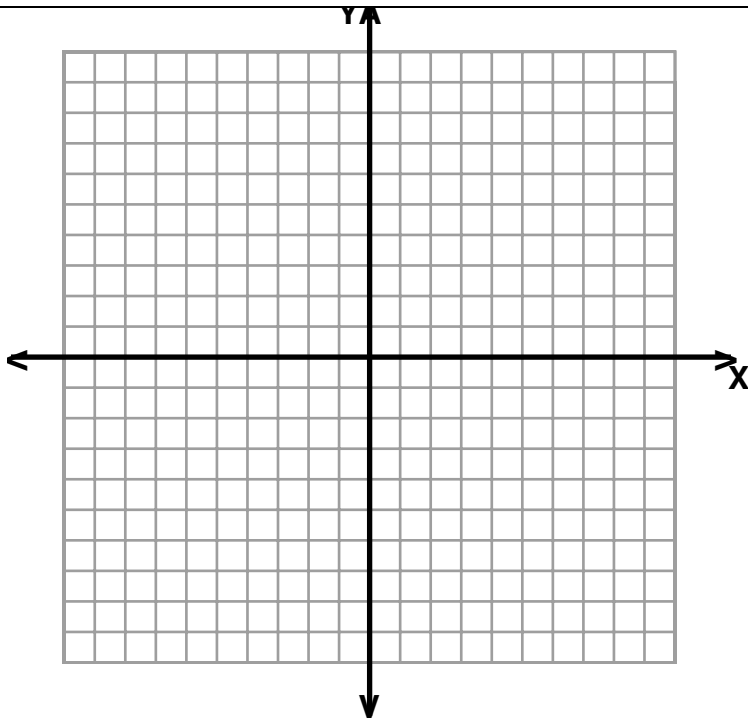


$m =$  \_\_\_\_\_

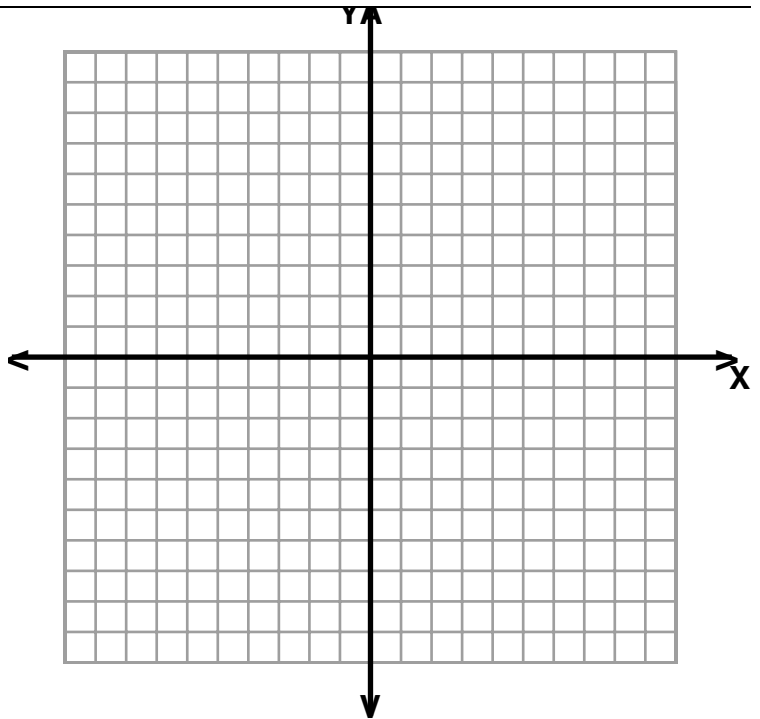
## Slope-Intercept Form

Write an equation for each in slope-intercept form. Then, graph your equation.

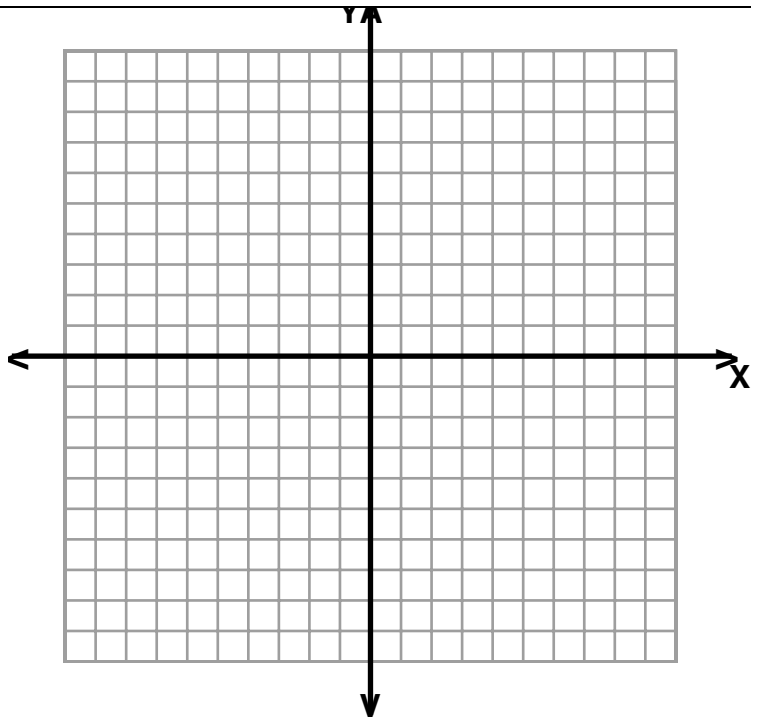
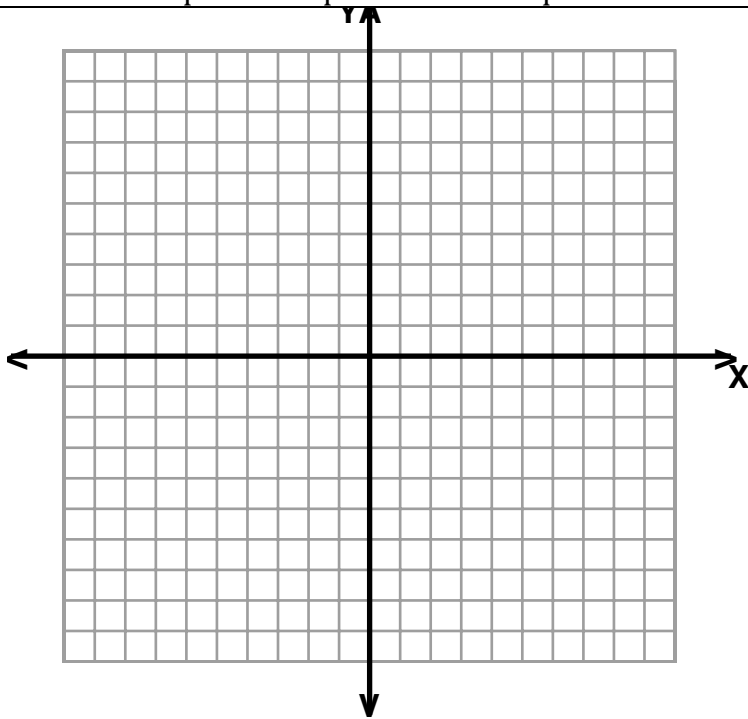
$$m = 2, b = -4$$



$$m = 4/5, b = -1$$



Write the slope-intercept form of the equation for the line.

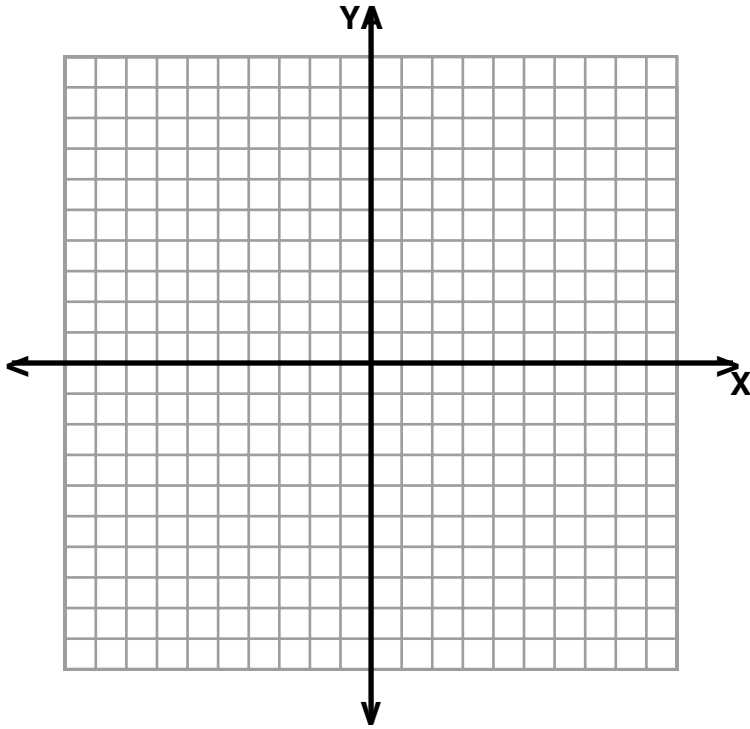


**Standard Form**

Find the x - and y-intercepts. Then graph each equation using the intercepts.

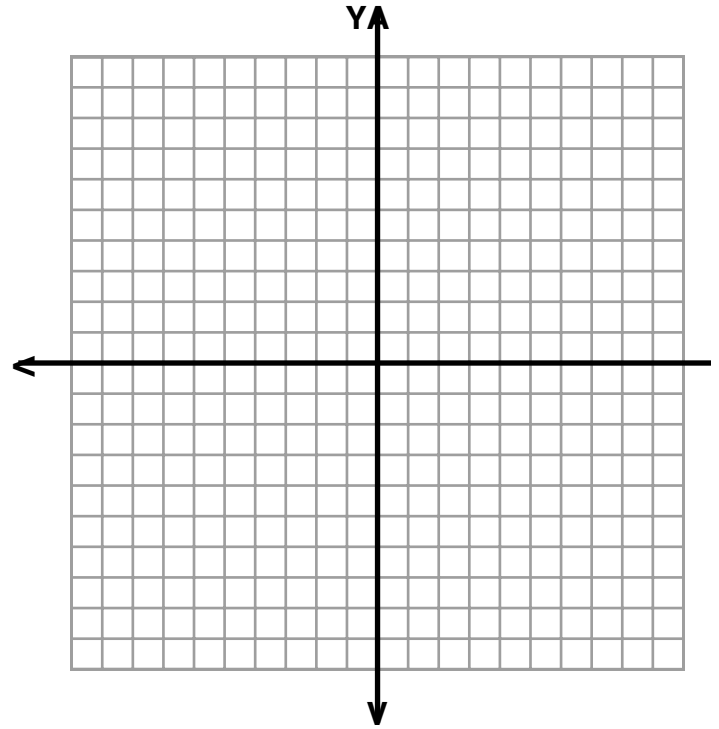
$$x + 2y = 8$$

x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_



$$3x - y = 9$$

x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_



Write each equation in standard form using only integers.

$$y = 2x - 6$$

$$y = \frac{1}{3}x - 3$$

**Parallel and Perpendicular Lines**

Identify which lines are parallel.

a.  $y = \frac{5}{3}x$

b.  $y = -5x + 2$

c.  $y = 5x + 4$

d.  $y = -5x - 1$

Identify which lines are perpendicular.

a.  $y = 2x + 1$

b.  $y = -3x$

c.  $y = -3x - 2$

d.  $y = -\frac{1}{2}x$

Write an equation in slope-intercept form for the line that passes through  $(0, 3)$  and is ***parallel*** to the line described by  $y = 2x + 10$ .

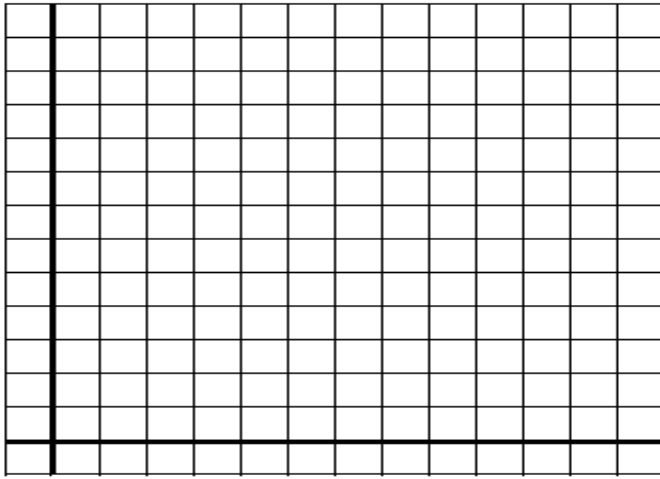
Write an equation in slope-intercept form for the line that passes through  $(0, 4)$  and is ***perpendicular*** to the line described by  $y = 5x - 2$ .

### Word Problems

**Situation:** A video rental store charges a \$20 membership fee and \$2.50 for each video rented. Write a linear function to describe the situation. Then graph your function.

Let \_\_\_\_ = \_\_\_\_\_      Let \_\_\_\_ = \_\_\_\_\_

**Equation:**



**Situation:** The store at which Andy usually shop is having a sale. Roast beef costs \$4 per pound and shrimp costs \$10 per pound. Andy has \$96 to spend

a. Write an equation in standard form to represent this equation.

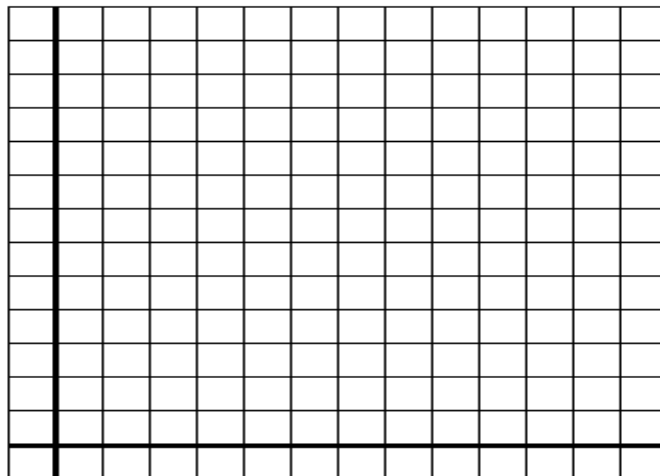
Equation: \_\_\_\_\_

b. Find the x and y-intercepts.

x-intercept: \_\_\_\_\_

y-intercept: \_\_\_\_\_

c. Graph the equation using the x and y-intercepts.



d. Use your graph to determine one possible combination of roast beef and shrimp.

